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In each case the plant grew in shallow, quiet water with a muddy bottom. I believe this plant will be found all along the northeastern border of the United States and in Canada, and I would suggest that collectors be on the lookout for it.

It is strange that none of the works on North American Botany mention the two bractlets at the base of the flowers in all species of *Myriophyllum.* So far as I know, Engler and Prantl in Natürlichen Pflanzen Familien and Martius in Flora Brasiliensis are the only ones mentioning these bractlets. I first found them in *Myriophyllum Farwellii,* where they are small, lanceolate and hyaline, as also in *M. tenellum* Big., *M. hippuroides* Nutt., *M. pinnatum* (Walt.), *M. Mexicanum* Watson, *M. laxum* Shutt. They are ovate and very large and conspicuous in *M. spicatum,* being two-thirds the size of the bracts and as firm in texture. In *M. alterniflorum* D.C. they are smaller than in *M. spicatum,* but similar in texture and shape. In *M. verticillatum* L. they are quite conspicuous, ovate and hyaline. In *M. heterophyllum* Michx., ovate, serrate and hyaline. In *M. humile* (Raf.), minute, oblong-ovate and membranous.

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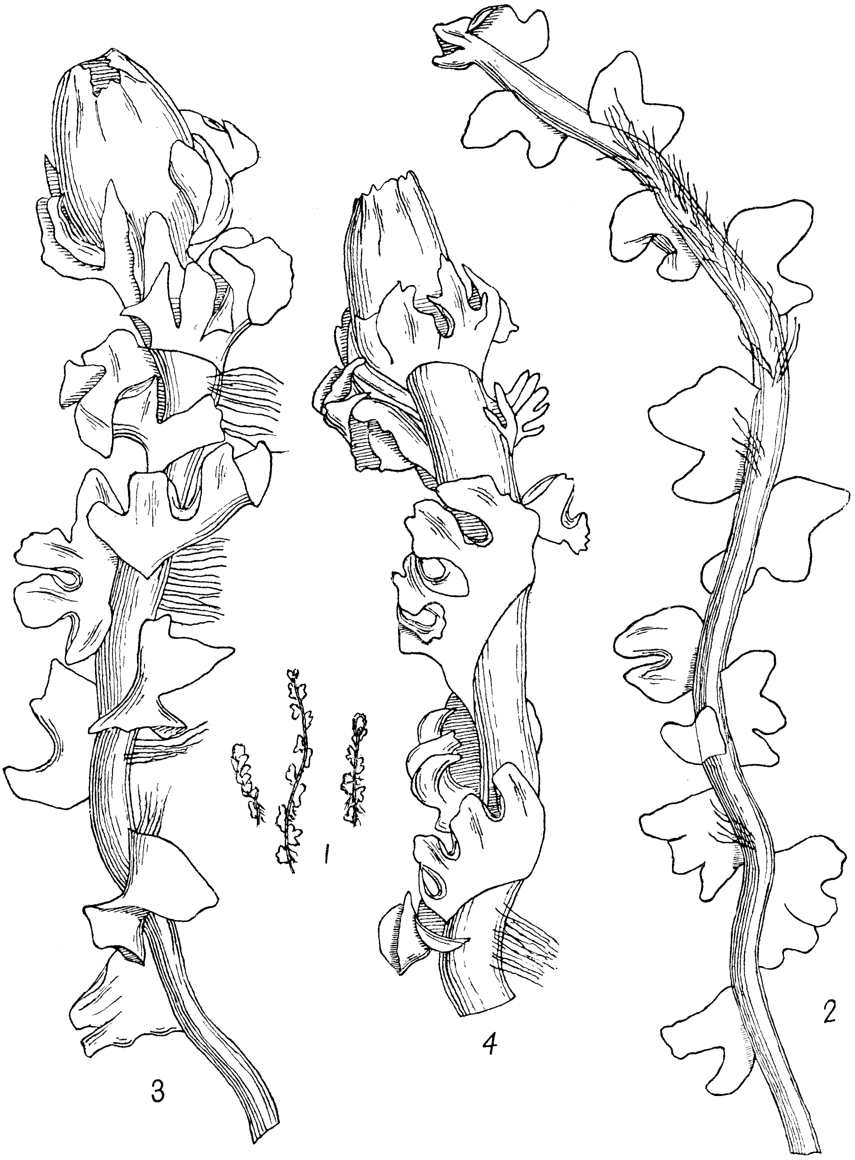
A Note on Jungermannia Marchica Nees.

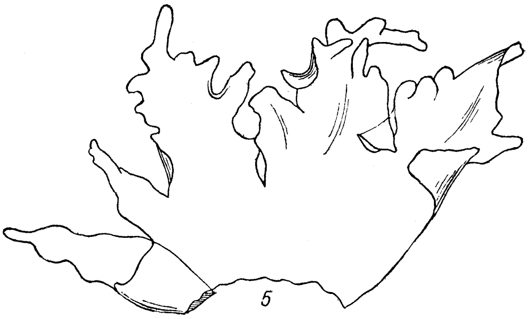
BY ALEXANDER W. EVANS.

(PLATES 254, 255.)

The hepatic before us is a most clearly marked species of Dumortier's subgenus *Lophozia;* but, probably on account of its extreme rarity, it remained for a long time strangely overlooked or misunderstood by both European and American botanists. During the forty years which followed Nees von Esenbeck's publication of the plant, *Jungermannia Marchica,* as a distinct species, quite disappeared from German literature. In the Synopsis Hepaticarum the only allusion to it is a brief description under Nees' first name, *J. socia, var. obtusa;* and even the type specimen, as Herr Stephani has recently determined, is labeled in the same way. Apparently nothing further was seen of the species in Ger-



JUNGERMANNIA MARCHICA NEES.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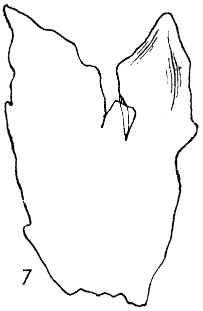
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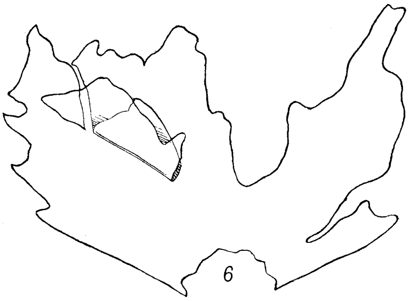
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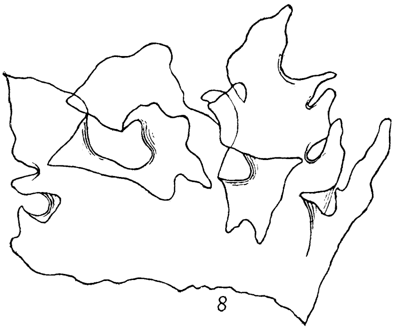
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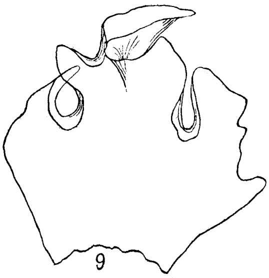
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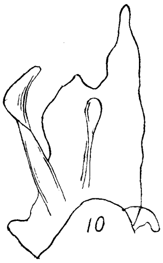
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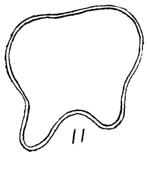
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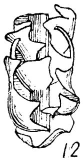
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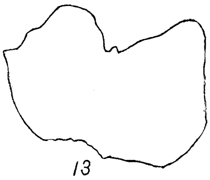
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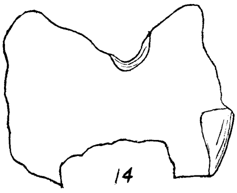
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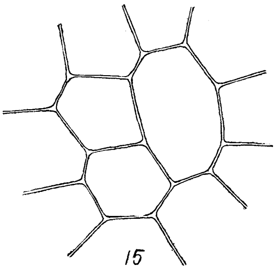
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JUNGERMANNIA MARCHICA NEES.

many until the beginning of the last decade, when it was rediscovered by Herr Warnstorf near Neuruppin. His specimens were sent for examination to Herr Limpricht, who referred them correctly to *J. Marchica* and published a full and accurate description of the species.* The plant was found last summer by Herr Löske of Berlin and the writer, in the Grunewald near that city, and it has also been reported from Scandinavia.†

Meanwhile, in the United States, Austin found the species, determined it as *J. polita* Nees, and distributed it under this name as No. 46 of his Hepaticae Boreali-Americanae. It here came before the attention of Lindberg, who recognized it as distinct from *J. polita* and described it as *Jungermannia laxa* n. sp. But he soon suspected its identity with *J. Marchica;* for, in 1879,‡ he gives the latter as a possible synonym of *J. laxa*, and, in 1886,§ he states positively that they are the same plant. Quite recently the species has been rediscovered in this country by Mr. Rand.||

The following description is drawn largely from the Grunewald specimens, which closely agree with those of Austin's distribution, and also, as Herr Stephani kindly informs me, with the type in the Nees herbarium:

JUNGERMANNIA MARCHICA Nees, Naturgesch. der europäisch. Lebermoose, **2**: 77. 1836.

J. socia Nees, var. *obtusa* Nees, l. c. **2**: 72. 1836.

J. polita Aust. Proc. Phil. Acad. **1869**: 220. [not Nees.]

J. laxa Lindb. Acta Soc. Sci. Fenn. **10**: 529. 1875.

Dioicous, creeping among *Sphagna* or loosely caespitose, pale green, becoming bleached or brownish with age; stems prostrate or ascending, thick and wiry, mostly simple, varying in color from pale green through reddish-brown to deep purplish-black, and bearing scattered rhizoids, which exhibit the same variations in color; leaves of the sterile stems and of the fertile stems in the lower part distant, obliquely inserted, not decurrent, broadly quad-

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* Eine verschollene Jungermannia. Flora, **65**: 45. 1882.

†Arnell, H. W. Bot. Notiser, 1894 : 49. Several facts regarding the history and synonymy of the species are also given here.

‡Musci Scand. 7 1879. [Footnote.]

§Meddel. Soc. F. et Fl. Fenn. **13**: 233. 1886.

|| Flora of Mt. Desert Island, Maine. 224. 1894.

rate, 2 to 4-lobed to about the middle, the sinuses usually obtuse or rounded, the lobes mostly plane but occasionally somewhat convex, broadly ovate, with rounded apex and entire margins; underleaves very rarely present, similar to the leaves but smaller; leaves of the fertile stems in the upper part contiguous, sometimes decurrent, the lobes becoming strikingly convex, crispate and irregularly sinuous or dentate; perichaetial bracts two pairs, similar in size and form to the upper stem-leaves but more incised and subdivided; inner bracteole free, usually 2-lobed, of the same character as the bracts; second bracteole (when present) similar to the inner one, but usually a little smaller and frequently bearing on its surface 1 or more ligulate appendages, a cluster of which, in some cases, entirely replaces the leafy expansion of the bracteole; perianth ovate-cylindrical, exserted, terete except in the upper third, where it is very obtusely keeled, the mouth somewhat contracted, minutely denticulate; perigonial bracts in about 5 pairs, imbricated, complicate, 2 or 3-lobed, similar to the leaves when explanate.

Stems up to 2.5 cm. long, 0.50 mm. in diameter; leaves averaging 1 mm. in length and 1.25 mm. in width; perichaetial bracts 1.–1.25 mm. long by 2.–2.5 mm. wide; perianth 3 mm. long, 1 mm. in diameter; perigonial bracts 1.50 mm. long by 1.75 mm. wide; leaf-cells thin-walled, polygonal, in the middle of the leaf 0.044–0.064 mm. in diameter.

Near Closter, New Jersey (Austin): Beach Mountain, Mount Desert Island, Maine (Rand).

The plant is apparently as rare with us as it is in Europe, but it is undoubtedly often passed by. The wiry stems wind in and out among the branches of a sphagnum tuft and are completely hidden from sight, while the pale leaves are scarcely to be distinguished by their color from the sphagnum leaves among which they grow. When we pull the tuft apart, the deep purplish color of the stems becomes apparent and at once distinguishes the plant from its allies. The stem is pentagonal in section and is bounded by an epidermoidal layer of cells with thickened walls; on the postical aspect, the pigmentation is especially well marked and affects the walls of these cells, the rhizoids springing from them, and, to a less degree, the two or three layers of cells just within them;

the other internal cells of the stem have thin and colorless walls. The perianth is one layer of cells in thickness down to the very base.

Jungermannia polita Nees is not a close ally of this plant, and may be at once distinguished from it by its smaller complicate leaves, the cells of which have thickened walls and well developed trigones. A rather closer relationship to *J. Marchica* may be discovered in the *J. Novae-Caesareae** of the writer, which is found in somewhat similar localities. The last named species differs in its weaker habit, in its pale and delicate stems, in its smaller leaves with less rounded lobes and smaller cells, in its simpler bracts and single connate bracteole, and in its perianth, which is keeled to below the middle and more deeply denticulate at the mouth. The nearest European ally, *J. Mildeana* Gottsche, has not yet been reported from America.

YALE UNIVERSITY.

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* Bull. Torr. Bot. Club, **20**: 308. *pl. 163.* 1893.

Description of Plates 254, 255.

Fig. 1. Plants, twice natural size.
Fig. 2. Sterile stem, postical view (× 18).
Fig. 3. Female stem, antical view (× 18).
Fig. 4. Female stem, lateral view (× 18).
Figs. 5, 6. Inner perichaetial bracts (× 22).
Fig. 7. Inner bracteole (× 22).
Figs. 8, 9. Second perichaetial bracts (× 22).
Fig. 10. Second bracteole (× 22).
Fig. 11. Transverse section of perianth in upper fourth (× 22).
Fig. 12 Male spike, antical view (× 12).
Figs. 13, 14. Perigonial bracts (× 22).
Fig. 15. Cells from middle of leaf (× 265).

New Melastomaceae collected by Miguel Bang in Bolivia.

BY A. COGNIAUX.

MICONIA GLOMERULIFERA (sect. Cremanium); ramis obtuse tetragonis, junioribus petiolis paniculis calycibus foliisque subtus ad nervos brevissime denseque stellato puberulis; foliis longe petiolatis, anguste ovatis, obtusiusculis, basi rotundatis, margine integerrimis vel vix undulato subdenticulatis et brevissime subsparseque